

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2004/013760

A. CLASSIFICATION OF SUBJECT MATTER
Int.Cl⁷ C12P19/32

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int.Cl⁷ C12P19/32

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
REGISTRY (STN), CA (STN), MEDLINE (STN), WPI (DIALOG), BIOSIS (DIALOG),
JSTPlus (JOIS)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 524143 A1 (CHIBA GEIGY AG.), 20 January, 1993 (20.01.93), Full text & AU 9220348 A & CA 2073954 A & JP 5-276973 A & US 5334514 A & IL 102527 A & TW 287200 A & DE 59209053 G & ES 2110481 T3 & MX 187966 B & SG 49789 A1	1-10
Y	WO 96/32492 A1 (NEOSE TECHNOLOGIES INC.), 17 October, 1996 (17.10.96), Full text & AU 9654453 A & EP 820520 A1 & US 5876980 A & JP 11-503328 A & DE 69623005 E & ES 2180757 T3	1-10

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex.

* Special categories of cited documents:

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier application or patent but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search
13 December, 2004 (13.12.04)Date of mailing of the international search report
28 December, 2004 (28.12.04)Name and mailing address of the ISA/
Japanese Patent Office

Authorized officer

Facsimile No.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	SHAMES, SL. et al., CMP-N-acetylneuraminic acid synthetase of Escherichia coli: high level expression, purification and use in the enzymatic synthesis of CMP-N-acetylneuraminic acid and CMP-neuraminic acid derivatives. Glycobiology (1991) Vol.1, No.2, pages 187 to 191	1-10
Y	O'BRIEN PJ. et al., Functional interrelation- ships in the alkaline phosphatase superfamily: phosphodiesterase activity of Escherichia coli alkaline phosphatase. Biochemistry. (2001) Vol.40, No.19, pages 5691 to 5699	7
Y	NESMEYANOVA, MA. et al., Multiple forms of alkaline phosphatase from Escherichia coli cells with repressed and derepressed biosynthesis of the enzyme. J Bacteriol (1981) Vol.146, No.2, pages 453 to 459	7
Y	MAGNOULOUX-BLANC. B. et al., Overproduction and excretion of β -lactamase and alkaline phosphatase by Escherichia coli <i>olp</i> mutants. Appl Microbiol Biotechnol (1988) Vol.29, No.2/3, pages 258 to 263	7
A	JP 61-180719 A (Mitsui Toatsu Chemicals, Inc.), 13 August, 1986 (13.08.86), Full text (Family: none)	1-10
A	WO 98/06239 A1 (SAMPLE RATE SYSTEMS OY), 12 February, 1998 (12.02.98), Full text & FI 9702221 A & AU 9737722 A & US 6332026 B1	1-10
A	EP 704536 A1 (HOECHST AG.), 07 March, 1996 (07.03.96), Full text & DE 4431280 A1 & JP 8-73480 A & CA 2157457 A & US 5811539 A & ES 2126822 T3	1-10
A	JP 2-177891 A (Snow Brand Milk Products Co., Ltd.), 10 July, 1990 (10.07.90), Full text (Family: none)	1-10
A	IKEDA, K. et al., Synthesis of sialic acid- containing nucleotide sugars: CMP-sialic acidanalogs. Carbohydrate Research (1992) Vol.224, No.7, pages 123 to 131	1-10